Instructions/Instruksies

QUESTION 1 (Multiple choice questions)

Please answer Question 1 on the <u>answering sheet provided at the end of the paper</u>. If necessary, show calculations clearly in your exam book. Remember to write your name and student number on the provided answering sheet.

QUESTION 1 (Multiple choice questions) **(45)**

Use the following to answer questions 1.1 to 1.3:

A company that makes organic fertilizer has supplied the following data:

Amount of bags produced and sold	680 000
Sales revenue	R4 352 000
Variable manufacturing expense	1 972 000
Fixed manufacturing expense	730 000
Variable selling and administrative expense	782 000
Fixed selling and administrative expense	412 000
Net operating income	R 456 000

1.1 The company's margin of safety in units is closest to:

A) 471 429
B) 501 563
C) 601 524
D) 194 043 (3)

1.2 The company's unit contribution margin is closest to:

A) R5,25
B) R4,05
C) R3,50
D) R2,35 (3)

1.3 The company's degree of operating leverage is closest to:

A) 3,50
B) 1,49
C) 9,54
D) 2,41 (3)

1.4 Use the following to answer questions 1.4 to 1.7:

Janos Company, which has only one product, has provided the following data concerning its most recent month of operations:

Selling price	R111
Units in beginning inventory	300
Units produced	2 000
Units sold	2 200
Units in ending inventory	100
Variable costs per unit:	
Direct materials	R29
Direct labour	30
Variable manufacturing overhead	4
Variable selling and administrative	9
Fixed costs:	
Fixed manufacturing overhead	R34 000
Fixed selling and administrative	39 600

The company produces the same number of units every month, although the sales in units vary from month to month. The company's variable costs per unit and total fixed costs have been constant from month to month.

What is the unit product cost for the month under variable costing?

A) R63
B) R80
C) R72
D) R89 (3)

1.5 What is the unit product cost for the month under absorption costing?

A) R80
B) R72
C) R63
D) R89 (3)

1.6 What is the net operating income for the month under variable costing?

A) R 8 800
B) R12 200
C) R 1 700
D) R24 800 (3)

1.7 What is the net operating income for the month under absorption costing?

A) R 8 800
B) R24 800
C) R 1 700
D) R12 200 (3)

Use the following data to answer questions 1.8 to 1.10:

Falquez Company sells three products: R, S, and T. Data for activity of Falquez Company during July are as follows:

		Product		
	Total	**R**	**S**	**T**
Sales	R800 000	R150 000	?	R200 000
Contribution margin ratio	32%	?	25%	40%
Traceable fixed expenses	R120 000	R 25 000	R60 000	?

Common fixed expenses for July amounted to R90 000.

1.8 Net operating income for the company was:

A) R166 000
B) R256 000
C) R334 000
D) R 46 000 (3)

1.9 The contribution margin for Product R was:

A) R48 750
B) R63 500
C) R51 000
D) R48 000 (3)

1.10 The segment margin for Product T was:

A) R 45 000
B) R 85 000
C) R (10 000)
D) R 80 000 (3)

1.11 The predetermined overhead rate is calculated as

A) estimated manufacturing overhead cost/actual activity
B) estimated manufacturing overhead costs/estimated activity
C) actual manufacturing overhead costs/estimated activity
D) actual manufacturing overhead costs/actual activity (3)

Figure 1

Gem Industries produces two products. Information about the products is as follows:

	Product X	**Product Y**
Units produced and sold	100	500
Selling price per unit	R400	R200
Variable expenses per unit	R260	R70

The company's fixed costs totalled R80 000, of which R29 000 can be avoided if Product X is dropped and R45 000 can be avoided if Product Y is dropped.

1.12 Refer to Figure 1. Gem's segment margin for Product Y is

A) R65 000
B) (R20 000)
C) R25 000
D) R20 000 (3)

1.13 Refer to Figure 1. The effect on Gem's profits if Product X is dropped would be:

A) R15 000 increase
B) R15 000 decrease
C) R14 000 decrease
D) R29 000 increase (3)

1.14 Fenway Market has two stores, F and G. During February, Store F had a segment margin of R10 000, traceable fixed expenses of R26 000, and variable expenses equal to 55% of sales. Fenway market as a whole had a combined segment margin of 15%, a contribution margin ratio of 40% and total sales of R180 000. Based on this information, the traceable fixed expenses in Store G were:

A) R19 000
B) R17 000
C) R30 000
D) R36 000 (3)

1.15 Sullivan Retailers has two stores: R and T. During July, Store R had a segment margin of R26 000, traceable fixed expenses of R34 000, and a contribution margin ratio of 20%. Store T had sales of R180 000, a contribution margin ratio of 40%, and a segment margin ratio of 5%. Variable expenses for the company as a whole totalled:

A) R132 000
B) R240 000
C) R312 000
D) R348 000 (3)

QUESTION 2 (Activity Based Costing) (19)

The California Cooking Oil Company (CCO) has been using machine-hours as the basis to determine overhead costs for all products. An ABC project team points out that the firm manufactures several products, each of which use significantly different factory supporting resources. As a start, the team suggests the following overhead cost pools, cost drivers, and estimated cost driver levels for manufacturing overheads:

Overhead Cost Pool	Cost Driver	Estimated Cost Driver Level	Budgeted Overhead
Machine setups	Number of setups	100	R100 000
Materials handling	Number of barrels	8 000	80 000
Quality control	Number of inspections	1 000	200 000
Other overhead cost	Machine-hours	10 000	100 000

CCO has recently completed production of 500 barrels each of P5 and G23. P5 is a corn-based oil distributed primarily through supermarkets. G23 is made from olive oil, flaxseed oil, and other exotic ingredients and sold to up-scale restaurants as a gourmet food. The productions require the following operations:

Overhead Cost Pool	Number of Cost Drivers P5		Number of Cost Drivers G23	
Machine setups	1	setup	50	setups
Materials handling	500	barrels	500	barrels
Quality inspections	2	times	20	times
Machine-hours	1 000	hours	1 000	hours

Required:

2.1 Determine the overhead costs per barrel of P5 and G23 using the current single cost driver system based on machine-hours. (6)

2.2 Determine the overhead costs per barrel of P5 and G23 using the multiple cost driver system suggested by the ABC project team. (8)

2.3 Critically discuss if the choice of costing system can be an important competitive factor for CCO. How can the costing system help the firm become more profitable and competitive? (5)

QUESTION 3 (Job costing) (20)

Finlon Upholstery, Ltd. uses a job-order costing system to accumulate manufacturing costs. The company's work-in-process on December 31, 2018, consisted of one job (no. 2077), which was carried on the year-end balance sheet at R156 800. There was no finished-goods inventory on this date.

Finlon applies manufacturing overhead to production on the basis of direct-labour cost. Budgeted totals for 2019 for direct labour and manufacturing overhead are R4 200 000 and R5 460 000, respectively. Actual results for the year follow.

Direct material used	R 5 600 000
Direct labour	4 350 000
Indirect material used	65 000
Indirect labour	2 860 000
Factory depreciation	1 740 000
Factory insurance	59 000
Factory utilities	830 000
Selling and administrative expenses	2 160 000
Total	R17 664 000

Job no. 2077 was completed in January 2019; there was no work in process at year-end. All jobs produced during 2019 were sold with the exception of job no. 2143, which contained direct-material costs of R156,000 and direct-labour charges of R85 000. The company charges any under- or overapplied overhead to Cost of Goods Sold.

Required:

3.1 Determine the company's predetermined overhead application rate. (2)

3.2 Determine the additions to the Work-in-Process Inventory account for direct material used, direct labour, and manufacturing overhead. (3)

3.3 Calculate the amount that the company would disclose as finished-goods inventory on the December 31, 2019, balance sheet. (3)

3.4 Calculate the amount that you would record for the year's completed production. (2)

3.5 Calculate the amount of under- or overapplied overhead at year-end, and prepare the necessary journal entry to record its disposition. (4)

3.6 Determine the company's 2019 cost of goods sold. (4)

3.7 Would it be appropriate to include selling and administrative expenses in either manufacturing overhead or cost of goods sold? Briefly explain. (2)

QUESTION 4 (ROI and performance evaluation) (16)

Kenneth Washburn, head of the Sporting Goods Division of Reliable Products, has just completed a miserable nine months. "If it could have gone wrong, it did. Sales are down, income is down, inventories are bloated, and quite frankly, I'm beginning to worry about my job," he moaned. Washburn is evaluated on the basis of ROI. Selected figures for the past nine months follow.

Sales	R4 800 000
Operating income	360 000
Invested capital	6 000 000

In an effort to make something out of nothing and to salvage the current year's performance, Washburn was contemplating implementation of some or all of the following four strategies:

Strategy 1: Write off and discard R60 000 of obsolete inventory. The company will take a loss on the disposal.

Strategy 2: Accelerate the collection of R80 000 of overdue customer accounts receivable.

Strategy 3: Stop advertising through year-end and drastically reduce outlays for repairs and maintenance. These actions are expected to save the division R150 000 of expenses and will conserve cash resources.

Strategy 4: Acquire two competitors that are expected to have the following financial characteristics:

	Projected Sales	Projected Operating Expenses	Projected Invested Capital
Anderson Manufacturing	R3 000 000	R2 400 000	R5 000 000
Palm Beach Enterprises	R4 500 000	R4 120 000	R4 750 000

Required:

4.1 Calculate the sales margin, capital turnover, and return on investment for Reliable's Sporting Goods Division over the past nine months. (3)

4.2 Evaluate each of the first two strategies listed, with respect to its effect on the Reliable's last nine months' performance, and make a recommendation to Washburn regarding which, if any, to adopt. (4)

4.3 Are there possible long-term problems associated with strategy 3? Briefly explain. (3)

4.4 Determine the ROI of the investment in Anderson Manufacturing and do the same for the investment in Palm Beach Enterprises. Should Washburn reject both acquisitions, acquire one company, or acquire both companies? Assume that sufficient capital is available to fund investments in both organisations. (6)

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TOTAL/TOTAAL: 100

ANSWER SHEET FOR QUESTION 1

NAME: ………………………………………… STUDENT NO: ……………………….

Question 1.1	A	B	C	D
Question 1.2	A	B	C	D
Question 1.3	A	B	C	D
Question 1.4	A	B	C	D
Question 1.5	A	B	C	D
Question 1.6	A	B	C	D
Question 1.7	A	B	C	D
Question 1.8	A	B	C	D
Question 1.9	A	B	C	D
Question 1.10	A	B	C	D
Question 1.11	A	B	C	D
Question 1.12	A	B	C	D
Question 1.13	A	B	C	D
Question 1.14	A	B	C	D
Question 1.15	A	B	C	D

(3x15=45)

File reference: 8.1.7.2.2

Instructions/Instruksies

VRAAG 1 (Multikeusevrae)

Beantwoord asseblief Vraag 1 op die <u>antwoordblad wat voorsien is aan die einde van die vraestel</u>. Indien nodig, toon berekeninge duidelik in u eksamenboek. Onthou om u naam en studentenommer op die antwoordblad wat voorsien is aan te bring.

VRAAG 1 (Multikeusevrae) **(45)**

Maak gebruik van die volgende om Vrae 1.1 tot 1.3 te beantwoord:

'n Maatskappy wat organiese kunsmis vervaardig, het aan u die volgende data verskaf:

Aantal sakke vervaardig en verkoop	680 000
Verkoopsinkomste	R4 352 000
Veranderlike vervaardigingskostes	1 972 000
Vaste vervaardigingskostes	730 000
Veranderlike verkoops- en administratiewe uitgawe	782 000
Vaste verkoops- en administratiewe uitgawe	412 000
Netto bedryfsinkomste	R 456 000

1.1 Die maatskappy se veiligheidsmarge in eenhede is naaste aan:

A) 471 429
B) 501 563
C) 601 524
D) 194 043 (3)

1.2 Die maatskappy se bydrae marge per eenheid is naaste aan:

A) R5,25
B) R4,05
C) R3,50
D) R2,35 (3)

1.3 Die maatskappy se graad van bedryfshefboomwerking is naaste aan:

A) 3,50
B) 1,49
C) 9,54
D) 2,41 (3)

1.4 Maak van die volgende gebruik om vrae 1.4 tot 1.7 te beantwoord:

Janos Maatskappy, wat slegs een produk het, het die volgende data ten opsigte van hul mees resente maand van bedrywighede verskaf:

Verkoopsprys	R111
Eenhede in beginvoorraad	300
Eenhede vervaardig	2 000
Eenhede verkoop	2 200
Eenhede in eindvoorraad	100
Veranderlike koste per eenheid:	
Direkte materiale	R29
Direkte arbeid	30
Veranderlike vervaardigingsbokoste	4
Veranderlike verkoops- en administratiewe	9
Vaste koste:	
Vaste vervaardigingsbokoste	R34 000
Vaste verkoops- en administratiewe	39 600

Die maatskappy vervaardig dieselfde aantal eenhede elke maand, hoewel die verkope in eenhede van maand tot maand verskil. Die maatskappy se veranderlike koste per eenheid en totale vaste koste is konstant van maand tot maand.

Wat is die produkkoste vir die maand onder veranderlike kosteberekening?

A) R63
B) R80
C) R72
D) R89 (3)

1.5 Wat is die produkkoste vir die maand onder absorpsie-kosteberekening?

A) R80
B) R72
C) R63
D) R89 (3)

1.6 Wat is die netto bedryfsinkomste vir die maand onder veranderlike kosteberekening?

A) R 8 800
B) R12 200
C) R 1 700
D) R24 800 (3)

1.7 Wat is die netto bedryfsinkomste vir die maand onder absorpsie-kosteberekening?

A) R 8 800
B) R24 800
C) R 1 700
D) R12 200 (3)

Maak van die volgende gebruik om vrae 1.8 tot 1.10 te beantwoord:

Falquez Maatskappy verkoop drie produkte: R, S en T. Data vir aktiwiteit van Falquez Maatskappy gedurende Julie is soos volg:

		Produk		
	Totaal	**R**	**S**	**T**
Verkope	R800 000	R150 000	?	R200 000
Bydrae marge-ratio	32%	?	25%	40%
Opspoorbare vaste uitgawes	R120 000	R 25 000	R60 000	?

Algemene vaste uitgawes vir Julie beloop R90 000

1.8 Netto bedryfsinkomste vir die maatskappy was:

A) R166 000
B) R256 000
C) R334 000
D) R 46 000 (3)

1.9 Die bydrae marge vir Produk R was:

A) R48 750
B) R63 500
C) R51 000
D) R48 000 (3)

1.10 Die segmentmarge vir Produk T was:

A) R 45 000
B) R 85 000
C) R(10 000)
D) R 80 000 (3)

1.11 Die voorafbepaalde bokostekoers word bereken as

A) Begrote vervaardigingsbokoste/werklike koste
B) Begrote vervaardigingsbokoste/begrote aktiwiteit
C) Werklike vervaardigingsbokoste/begrote aktiwiteit
D) Werklike vervaardigingsbokoste/werklike aktiwiteit (3)

Figuur 1

Gem Industrieë vervaardig twee produkte. Inligting oor die produkte is soos volg:

	Produk X	**Produk Y**
Eenheid geproduseer en verkoop	100	500
Verkoopsprys per eenheid	R400	R200
Veranderlike uitgawes per eenheid	R260	R70

Die maatskappy se vaste kostes beloop R80 000, waarvan R29 000 vermy kan word indien Produk X weggelaat word, en R45 000 kan vermy word indien Produk Y weggelaat word.

1.12 Verwys na Figuur 1. Gem se segmentmarge vir Produk Y is:

A) R65 000
B) (R20 000)
C) R25 000
D) R20 000 (3)

1.13 Verwys na Figuur 1. Die effek op Gem se winste indien Produk X weggelaat word, sal die volgende wees:

A) R15 000 toename
B) R15 000 afname
C) R14 000 afname
D) R29 000 toename (3)

1.14 Fenway Mark het twee winkels, F en G. Gedurende Februarie het Winkel F ’n segmentmarge van R10 000, naspeurbare vaste uitgawes van R26 000, en veranderlike uitgawes gelyk aan 55% van verkope. Fenway Mark as geheel het ’n gekombineerde segmentmarge van 15%, ’n kontribusiemarge-ratio van 40% en totale verkope van R180 000. Gebaseer op hierdie inligting, was die naspeurbare vaste uitgawes in Winkel G:

A) R19 000
B) R17 000
C) R30 000
D) R36 000 (3)

1.15 Sullivan Kleinhandelaars het twee winkels: R en T. Gedurende Julie het Winkel R ’n segmentmarge van R26 000, naspeurbare vaste uitgawes van R34 000, en ’n kontribusiemarge-ratio van 20%. Winkel T het verkope van R180 000, ’n kontribusiemarge-ratio van 40%, en ’n segmentmarge-ratio van 5%. Veranderlike uitgawes vir die maatskappy as geheel, beloop:

A) R132 000
B) R240 000
C) R312 000
D) R348 000 (3)

VRAAG 2 (Aktiwiteitsgebaseerde kosteberekening) (19)

Die California Cooking Oil Company (CCO) het van masjien-ure gebruik gemaak as die basis om bokoste-kostes vir alle produkte te bepaal. ’n ABC-projekspan wys uit dat die besigheid verskeie produkte vervaardig, waarvan elk beduidend verskillende fabrieksondersteuningshulpbronne gebruik. As ’n begin, stel die span die volgende bokoste kostepoele, kostedrywers, en beraamde aktiwiteitsvlakke vir vervaardigings-bokoste voor:

		Beraamde Koste	
Bokoste Kostepoel	**Kostedrywer**	**Akwititeitsvlak**	**Begrote Bokoste**
Masjien-opstellings	Aantal opstellings	100	R100 000
Materiaal-hantering	Aantal vate	8 000	80 000
Kwaliteitskontrole	aantal inspeksies	1 000	200 000
Ander bokoste-kostes	Masjien-ure	10 000	100 000

CCO het onlangs die produksie van 500 vate elk van P5 en G23 voltooi. P5 is ’n koring-basis olie wat primêr deur supermarkte versprei word. G23 word gemaak van olyfolie, lynolie en ander eksotiese bestanddele en word verkoop aan eksklusiewe restourante as ’n gourmet kos. Die produksie vereis die volgende bedrywighede:

	Aantal aktiwiteitsdrywers	
Bokoste kostepoel	**P5**	**G23**
Masjien-opstellings	1 opstelling	50 opstellings
Materiaal-hantering	500 vate	500 vate
Kwaliteit inspeksies	2 maal	20 maal
Masjien-ure	1 000 ure	1 000 ure

Verlang:

2.1 Bepaal die bokoste per vat van P5 en G23 deur van die huidige enkelkostedrywerstelsel, gebaseer op masjien-ure, gebruik te maak. (6)

2.2 Bepaal die bokoste per vat van P5 en G23 deur gebruik te maak van die meervoudige kostedrywerstelsel, soos voorgestel deur die ABC-span. (8)

2.3 Bespreek krities of die keuse van kostestelsel ’n belangrike mededingende faktor vir CCO kan wees. Hoe kan die kostestelsel die besigheid help om meer winsgewend en mededingend te wees? (5)

VRAAG 3 (Taakkoste) **(20)**

Finlon Stoffeerders Bpk. gebruik 'n taakkoste stelsel om vervaardigingskoste te bereken. Die maatskappy se werk-in-proses op 31 Desember 2018, het uit een taak (no. 2077), bestaan en die balans op die Balansstaat was R156 800. Op 31 Desember 2018 was daar geen voltooide goedere in die voorraad nie.

Finlon deel bokoste na produksie toe op die basis van direkte arbeidskoste. Begrote direkte arbeidskoste vir 2019 is R4 200 000 en begrote vervaardigingsbokoste is R5 460 000. Die werklike resultate vir die jaar is as volg:

Direkte materiaal verbruik	R 5 600 000
Direkte arbeid	4 350 000
Indirekte materiaal verbruik	65 000
Indirekte arbeid	2 860 000
Waardevermindering by die Fabriek	1 740 000
Versekering by die Fabriek	59 000
Verbruiksgoedere by die Fabriek	830 000
Verkoop- en administratiewe uitgawes	2 160 000
Totaal	R17 664 000

Taak no. 2077 is voltooi gedurende Januarie 2019; daar was geen werk-in-proses teen die einde van die jaar nie. Alle take wat gedurende 2019 geproduseer is, is verkoop met die uitsondering van taak no. 2143. Die taak bevat direkte materiaalkoste van R156 000 en direkte arbeidskoste van R85 000. Die maatskappy sluit sy oor- of ondertoegedeelde bokoste af teen Koste van Verkope.

Gevra:

3.1 Bereken die maatskappy se vooraf berekende bokostekoers. (2)

3.2 Bereken die bedrae toegevoeg tot die Werk-in-proses rekening vir direkte materiaal verbruik, direkte arbeid en vervaardigingsbokoste. (3)

3.3 Bereken die bedrag wat teen 31 Desember 2019 in die Balansstaat getoon sal word as die waarde van die voltooide voorraad. (3)

3.4 Bereken die bedrag wat u sou opteken as die jaar se voltooide produksie. (2)

3.5 Bereken die jaar se onder- of oortoegedeelde bokoste en doen die joernaal om die afsluiting aan te toon. (4)

3.6 Bereken die maatskappy se Koste van Verkope uit 2019. (4)

3.7 Is dit gepas om verkoops- en administratiewe uitgawes by vervaardigings-bokoste of by Koste van Verkope in te sluit? Verduidelik kortliks. (2)

VRAAG 4 (ROI en prestasie evaluering) (16)

Kenneth Washburn, hoof van die Sportiewe Goedere Afdeling van Reliable Bpk, het ŉ baie slegte 9 maande agter die rug. “Alles wat verkeerd kan gaan, het gebeur. Verkope het gedaal, winste is af, voorrade is onnodig hoog en in werklikheid begin hy voel sy werk is in gevaar”, kla hy. Washburn word geëvalueer op ROI. ŉ Paar geselekteerde syfers vir die afgelope 9 maande lyk as volg:

Verkope	R4 800 000
Bedryfsinkomste	360 000
Geïnvesteerde bates	6 000 000

In ŉ poging om iets te probeer red van die huidige jaar se swak prestasie, oorweeg Washburn sommige of al die volgende vier strategieë:

Strategie 1) Skryf af en raak ontslae van R60 000 se ou voorraad. Die maatskappy sal ŉ verlies maak indien dit verkoop word.

Strategie 2) Maak ŉ plan om die R80 000 se uitstaande debiteure vinniger in te vorder.

Strategie 3) Staak alle advertensies na jaar einde toe, asook alle herstelwerk en onderhoud. Hierdie aksies sal die afdeling R150 000 se uitgawes spaar en sodoende kontant beskerm.

Strategie 4) Oorweeg die belegging in twee nuwe vennote met die volgende finansiële inligting tot sy beskikking:

	Begrote verkope	**Begrote Bedryfsuitgawes**	**Begrote Geïnvesteerde Kapitaal**
Anderson Manufacturing	R3 000 000	R2 400 000	R5 000 000
Palm Beach Enterprises	R4 500 000	R4 120 000	R4 750 000

Gevra:

4.1 Bereken die wins marge, bate omsetsnelheid en ROI vir Reliable Sportiewe Goedere afdeling vir die afgelope 9 maande. (3)

4.2 Evalueer elkeen van die eerste twee strategieë met betrekking tot die invloed wat dit sal hê op Reliable se prestasie die afgelope 9 maande. Maak ŉ aanbeveling of Washburn enige of albei of geen van die strategieë moet implementeer. (4)

4.3 Is daar enige langtermyn probleme wat u kan identifiseer met strategie 3. Verduidelik u antwoord. (3)

4.4 Bereken die ROI vir die belegging in beide Anderson en Palm Beach afsonderlik. Behoort Washburn in beide ondernemings te belê, slegs in een of moet hy albei ignoreer? Veronderstel daar is genoeg kapitaal beskikbaar om in beide te belê. (6)

TOTAL/TOTAAL: 100

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ANTWOORDBLAD VIR VRAAG 1

NAAM: …………………………………… STUDENTENOMMER ……………………...

Vraag 1.1	A	B	C	D
Vraag 1.2	A	B	C	D
Vraag 1.3	A	B	C	D
Vraag 1.4	A	B	C	D
Vraag 1.5	A	B	C	D
Vraag 1.6	A	B	C	D
Vraag 1.7	A	B	C	D
Vraag 1.8	A	B	C	D
Vraag 1.9	A	B	C	D
Vraag 1.10	A	B	C	D
Vraag 1.11	A	B	C	D
Vraag 1.12	A	B	C	D
Vraag 1.13	A	B	C	D
Vraag 1.14	A	B	C	D
Vraag 1.15	A	B	C	D

(3x15=45)

File reference: 8.1.7.2.2